LO: To solve multi-step addition and subtraction problems

Maths Task 3

Learn It

1) Use the bar model to help you find the answers to these questions.

I am up to page 127 in my 'Sweets and Treats' book. I need to read 96 more pages in order to be halfway through my book. How many pages does my book have altogether?

<table>
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<tr>
<th>127</th>
<th>96</th>
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<tr>
<td>(\frac{1}{2}) book =</td>
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whole book = ____________

2) Answer these problems in words by thinking about the key information in the question.

a) 168 parents watched the performance of a class play on Monday evening. On Tuesday evening, there were 29 fewer parents watching the performance. How many parents altogether watched the performances?

b) The school hall is normally able to seat 350 people. There are 10 rows of seats with 35 seats in each row. Tonight, it can only fit in 9 rows of seats. If all of the above parents came tonight, would there be any seats left over?

c) Megan, Sadie and Ola have a combined age of 81. The combined age of Megan and Sadie is 52. If Megan is 24, how old must Sadie and Ola be?

d) The 'Healthy Scrumptious Snacks' cafe has just opened. It is looking at how much money it made in sales of food and drinks in the first two months. It sold £9456 worth of food and £3567 worth of drinks in the first month. In the second month, it made £380 less from food sales and £650 less from drinks sales than in the first month. The cafe’s target was to sell £26 500 worth of food and drinks in the first two months. How much more did they need to sell to meet their target?
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Twist It

Halim decided to load £20 onto his ‘Twinkl Tunes’ account. The prices of some of the albums that Halim is interested in buying are shown below.

![Album Prices](image)

a) What combination of three albums would leave him with the most money in his account? How much would he be left with?

b) Which three albums would leave him with the least amount of money? How much would he be left with?

c) What is the maximum number of albums he could buy with his £20? How much money would he be left with?

d) Give different combinations of albums that Halim could buy with the following amounts of money. Remember to state how much money would be left in his account each time.

<table>
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<tr>
<th>£10</th>
<th>£13</th>
<th>£15</th>
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Deepen It

1) Two children are discussing this word problem:

"Some people are on a train. 175 people get on the train at one stop. 128 more people get on at the next stop. There are now 419 people on the train. How many people were on the train at the start of the journey?"

175  128  419

I think that my bar model represents the problem correctly.

Anna

I disagree with Isaac and think my bar model represents the problem correctly.

Which child do you agree with? Explain your reasoning.
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Answers:

Learn It

1)  

<table>
<thead>
<tr>
<th>127</th>
<th>96</th>
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<tbody>
<tr>
<td>\frac{1}{2} \text{ book} = 223</td>
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127 + 96 = 223
\frac{1}{2} \text{ book} = 223
\frac{1}{2} \text{ book} = 223
whole book = 446

223 is halfway through the book. I need to double 223 to find the number of pages the book has altogether.
223 \times 2 = 446 pages

2)  

a) Number of parents at Tuesday’s performance is 168 - 29 = 139
   168 + 139 = 307 parents altogether

b) Yes, there would be 8 seats left over.
   350 - 35 = 315
   315 - 307 = 8 seats left

c) 81 - 52 = Ola’s age
   Ola = 29
   81 - (24 + 29) = Sadie’s age
   Sadie = 28

d) Month 1: £9456 + £3567 = £13 023
   Month 2 food: £9456 - £380 = £9076
   Month 2 drinks: £3567 - £650 = £2917
   Month 2 total: £9076 + £2917 = £11 993
   Month 1 and 2 total: £13 023 + £11 993 = £25 016
   £26 500 - £25 016 = £1484 more needed to meet their target.

Twist It

a) Halim could buy the Winter, Happiness and Love albums for £12.59. This would leave him with £7.41
b) Ambient, Summer and Calm albums for £19.79, which would leave him with 21p.
c) Halim could buy four albums (Winter, Love, Happiness and Calm for £18.08. This would leave him with £1.92.
d) £10
   Answers will vary but might include: Winter album and Love album = £8.24 and £1.76 left over
   £13
   Answers will vary but might include: Winter album, Love album and Happiness album = £12.59 and
   £0.41 left over or Energy album and Calm album = £12.14 and £0.86 left over.
   £15
   Answers will vary but might include: Ambient album and Summer album = £14.30 and £0.70 left over
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Deepen It

1) Anna has correctly modelled the problem. Her bar model shows that we could represent the problem by adding together 175 and 128 to give 303. Then we could find the difference between 303 and 419 to give the final answer of 116. Isaac is incorrect as his model has the total number of people on the train on the same bar as the number of people who get on at the first and second stops. If he adds all these numbers together, this will not show him how many people were on the train at the start.